

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE NOMINAL GENUS *BLANKAARTIA* OUDEMANS, 1911 (NEMATODA). Z.N.(S.) 330

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Part 1. Historical Survey

The present report is based on drafts submitted by and correspondence received from Professors Henry S. Fuller and G. W. Wharton (U.S.A.), Dr. J. R. Audy (Malaya), Dr. G. Owen Evans (British Museum, Nat. Hist.), Dr. James M. Brennan (U.S.A.), and Dr. H. Womersley (South Australia). In addition full use has been made of Mr. Francis Hemming's correspondence on this case during the past twelve years. From the point of view of the Office of the Commission, this case has proved to be one of unusual difficulty because it involves taxonomic, as well as nomenclatorial, issues which have given rise to diverse opinions amongst acarologists.

2. The problem was first submitted to the Commission in December 1947, by Henry S. Fuller, Assistant Professor of Preventive Medicine and G. Wharton, Assistant Professor of Zoology, both at that time of Duke University, Durham, North Carolina, U.S.A. They pointed out that it concerned the proper application of certain generic names in the family TROMBICULIDAE Ewing, 1944, as follows:—

3. The genus *Blankaartia* was proposed by Oudemans, 1 January 1911, (*Ent. Berichten* 3 (57) : 123) for *Trombidium niloticum* Trägårdh. Although Oudemans cited the type as *Thrombidium* [sic] *niloticum* Trägårdh, his description was based on the larva only. The adult was not mentioned and no other species were included in the genus.

4. The genus *Blankaartia* was again treated by Oudemans in 1912 (*Zool. Jahrb.*, Suppl. 14(1) : 118–122, text-fig. H). Here he described only the larva but on pp. 121–122 he alluded to the problem of whether the larva and adult described by Trägårdh were really one and the same species and stated that the type was in Trägårdh's collection. *Trombidium niloticum* was described by Trägårdh in 1905 (*Results Swedish Zoological Expedition to Egypt and the White Nile*, 1901, II : 78–82). Although he was uncertain whether the larvae found associated with the adults were actually of the same species, he proceeded to describe them as belonging to *T. niloticum*. It is now known that the larvae and adults belong to different families.

5. In 1912, Berlese (*Redia* 8 : 4) published, in his Trombidiidae *Prospetto dei generi e della specie finora noti*, the statement :

“*Trombicula* Berlese, 1905 . . . typus *T. minor* Berl. Subgen. *Traghardula* n. subg. . . . typus *T. nilotica* Träg.”

On page 95 of the same paper *loc. cit.*, he gave a diagnosis of the subgenus *Blankaartia* Oudemans, 1911, based on the adult of *T. niloticum*. He also figured the adult of *T. niloticum* (figs. 45 and 46) and on page 97 in his discussion

of *T. niloticum* he stated that he had named the subgenus *Tragardhula* in homage to Trägårdh, which clearly indicated that he had intended to establish a new subgenus based on the adult of *T. niloticum*.

Fuller and Wharton concluded their application with a request that the Commission should "suspend the rules and designate *Trombidium niloticum* Trägårdh, 1905, in part (larva only) = *Blankaartia* n. sp. as the type of the genus *Blankaartia* Oudemans, 1911, and add *Tragardhula* Berlese, 1912, with *Trombidium niloticum* Trägårdh, 1905, as the type, to the Official List of Generic Names in Zoology."

6. Owing to the absence of Mr. Francis Hemming in America this application was not dealt with until February 1949 when the Secretary advised Fuller and Wharton to publish a valid name for the larval species, and asked for additional information and reasons why serious confusion would arise if *Blankaartia* had to be used for species congeneric with *Trombidium niloticum*. Fuller and Wharton replied that according to their interpretation of Opinion 168, the names *Blankaartia* and *Tragardhula* were to be considered of uncertain status until the Commission had given an opinion concerning them. Furthermore, these uncertain names should, by the rules, not be used if unequivocal names were available. They pointed out that *Pentagonella* Thor, 1936, and *Megatrombicula* Michener, 1947, were available. In the meantime, however, Womersley of the S. Australian Museum had published a paper "The genus *Tragardhula* Berlese, 1912 (Acarina, Trombiculidae)", *Trans. Roy. Soc. S. Australia* 72(1): 83-90, in which he considered *Tragardhula* Berlese as a valid genus with its type *Trombidium niloticum* Trägårdh. Although recognising *Blankaartia* and referring to *Blankaartia nilotica* Oudemans, he did not designate a type. Fuller and Wharton considered that the confusion could best be remedied by publishing a new name for the larva on which *Blankaartia* had been based.

7. Hemming then drew up a rough draft of the case based on the information he had received, which he forwarded to Fuller and Wharton for comment. In this draft he took the view that this was an application concerned essentially with a case in which, as the result of a misidentification of a larval form with an adult form, the species which is universally accepted as the type-species of a given genus (*Blankaartia*) is not in fact the species which under the Rules is the type species of that genus. He wrote: "If we were concerned here with a matter of no more than nomenclatorial interest, we could put the nomenclature of these two species on a sound basis:—

- (a) by applying the generic name *Blankaartia* Oudemans, 1911, to species "A" (the species represented by Trägårdh's adult form) instead of, as at present (incorrectly), to Species "B" (Trägårdh's larval form);
- (b) by sinking the generic name *Tragardhula* Berlese, 1912, as a synonym of *Blankaartia* Oudemans, 1911 (the two genera having the same species as their respective type-species), thereby depriving Species "A" of the generic name (*Tragardhula*) by which it is always known.
- (c) by establishing a genus with a new name for Species "B", the accustomed name *Blankaartia* no longer being available for this species owing to its having been transferred to Species "A".

(d) by publishing a specific trivial name for Species "B".

8. Hemming saw the strongest possible objection to the action indicated in (a), (b) and (c) and preferred to use the plenary powers. He finally proposed that Fuller and Wharton should ask the Commission

(1) to use their plenary powers :

(a) to set aside all designations of type-species for the under-mentioned genera made prior to the decision of the Commission :

(i) *Blankaartia* Oudemans, 1911 ;

(ii) *Tragardhula* Berlese, 1912 ;

(b) to designate *Blankaartia* sp. nov. (larval form) to be the type-species of the genus *Blankaartia* Oudemans, 1911 ;

(c) to designate *Trombidium niloticum* Trägårdh, 1905, as identified by that author's description of the adult mite so named, to be the type-species of the genus *Tragardhula* Berlese, 1912 ;

(2) to place on the Official List of Generic Names in Zoology the generic names specified in 1(a) above, with the type-species respectively designated therefor in 1(b) and 1(c) above ;

(3) to place on the Official List of Specific Names in Zoology :

(a) the specific name *niloticum* Trägårdh, 1905 (as published in the binominal combination *Trombidium niloticum*), as defined in 1(c) above ;

(b) the specific name (nom. sp. nov.) Fuller and Wharton (as published in the binominal combination *Blankaartia* (nom. sp. nov.)).

9. This draft was sent to Fuller and Wharton in October 1949. They considered, however, that, as these genera were not of medical importance (did not carry scrub typhus) and as no great confusion would be caused, since these names were known only to a few workers, the plenary powers could not properly be invoked. They decided to adopt the proposals suggested by Hemming for use in normal nomenclatorial practice. In June 1951 (*Psyche* 58(2) : 85-88) they published a paper entitled "The Generic Names *Blankaartia* Oudemans, 1911 and *Trombiculoides* Jacot, 1938. (Acari : Trombiculidae)" in which they made use of some of the views expressed by Hemming. They wrote : "It is therefore necessary either to apply the principle established in Opinion 168 that designations of type-species for genera must stand, or to refer the case to the Commission for use of their plenary powers to suspend the rules. Since the Commission can use its plenary powers only when strict application of the rules will result in greater confusion than uniformity, the type designations for the genera *Blankaartia* and *Trombiculoides* must be accepted. Oudemans, 1911, designated *Trombidium niloticum* Trägårdh, 1905, as type of a new genus *Blankaartia* (*Ent. Ber.* 3 : 123). According to the rules *Blankaartia* must retain as genotype *Trombidium niloticum* Trägårdh, 1905. Berlese, 1912, proposed the subgeneric name *Tragardhula* with the type *T. nilotica* (Träg.) (*Redia* 8 : 4). Since *Blankaartia* and *Tragardhula* are based on the same type-species they are synonyms." They stated that strict application of the rule of priority leads to the conclusion that *Blankaartia* has priority over *Tragardhula*. They therefore accepted *Blankaartia* as the

name of Trägårdh's adult and proposed a new name for the larva, *Pseudoblankaartia* (n. gen.) *bequaerti* (n. sp.).

10. The next communication, received in April 1956 by the Commission, was from Dr. J. R. Audy of the Institute for Medical Research, Kuala Lumpur, Malaya, who asked for advice on the use of *Blankaartia* and *Tragardhula*. He was committed to a check-list of the trombiculids of the Oriental and Australasian Regions and urgently wanted the opinion of the Commission. He wrote: "I have discussed this with my colleagues Col. Robert Traub and Dr. J. A. Reid. Traub suggests further support of Womersley's contention, thus: Oudemans was correct in setting up a new genus (*Blankaartia*) for the larvae which obviously did not belong to the genus *Trombidium*, or any genus then known, and which he misidentified as *Trombidium niloticum*. He erred in using the name *Trombidium niloticum* Trägårdh as the type of his genus in the mistaken assumption that this was the correct name for the larvae. But the type of a genus is a species and not a name. Therefore, we may argue that *Blankaartia* was based on a valid generic concept and the type-species is that of the larvae; viz. *Trombidium niloticum* misidentified. The name cannot be accepted; therefore *Trombidium niloticum* Trägårdh is not the type of *Blankaartia*. The larvae require a new trivial name (that of Fuller and Wharton, *bequaerti*; being available now). If this is accepted, then *Tragardhula* is unrelated to *Blankaartia* and is the correct repository for the species *niloticum*."

11. This letter was briefly acknowledged by Hemming. Audy replied by sending to the Commission a copy of a letter which Dr. James Brennan (Rocky Mountain Laboratory, U.S.A.) had written to Womersley in Australia on 9 May 1956. Having discussed the problem with his colleagues, Kohls and Philip, he wrote: "We do not believe that the case in point is as complex as one might be led to think . . . Evidently both you and Fuller and Wharton have, in your respective interpretations, overlooked the basic principle of the first reviser, in this instance Oudemans, 1911. True, this rule was repealed by the 1948 Paris Congress, but was reinstated by the 1953 Copenhagen Congress. Doubts, opinions, provisional assignments, and intent, of authors are of no consequence whatever in reaching a decision in the matter at hand. Only the bare facts and what authors actually did can be considered. Oudemans, 1911, in establishing the genus *Blankaartia* on one component (the larva) of Trägårdh's composite species and designating *Trombidium niloticum* as the genotype, was, as the first reviser, entirely within his rights. Irrevocably now, the larvae have a valid name, *Blankaartia nilotica* (Trägårdh, 1904). The rule of the first reviser and not the misidentification clause of Article 31, obtains here. Unfortunately, the other component (the adult) was left dangling. What Oudemans, 1912, believed is not pertinent at all. Berlese, 1912, erred in selecting the Trägårdh species as genotype of *Tragardhula*. Its prior use by Oudemans, 1911, made it unavailable. This is a misidentification by Berlese, and according to Article 31, the name *Tragardhula nilotica* (Trägårdh) is invalid, i.e., the specific name cannot be retained. He should have described the adults as a new species and made this his genotype . . . Fuller and Wharton have contributed nothing in the way of a logical solution. The introduction of the names *Pseudoblankaartia* and *bequaerti* was useless.

The former is a synonym of *Blankaartia*, the latter of *nilotica*. Conclusion : *Blankaartia nilotica* (Trägårdh, 1904) is the correct name for the Trägårdh larvae which are not trombiculids. The adults, which are trombiculids, of the Trägårdh composite species are unnamed. The generic name *Tragardhula* appears to be available but a specific name is lacking." Before going any further with the history of the case it should be pointed out here that the first reviser principle does not apply in cases of this sort. Dr. Brennan's contention, therefore, cannot be accepted as a valid solution of the problem.

12. On receipt from Audy of the copy of Brennan's letter, Hemming submitted the problem to Dr. G. Owen Evans, acarologist of the British Museum (Nat. Hist.). Evans (13 June 1956) supplied a written statement of his opinion in which he found it necessary to refer only to three works. Trägårdh 1905, Oudemans 1911 and Berlese 1912. However, he brought forward Oudemans 1912 paper (*Zool. Jahrb. Suppl.* 14 : 118) in which that author gave an excellent description of his genus *Blankaartia* based entirely on Trägårdh's larva.

13. Evans concluded that *Blankaartia* must be retained for the larva of *Trombidium niloticum* since Oudemans left no doubt that it was the larval form he was dealing with when proposing the genus and that *Tragardhula* was the valid name for the adults of *T. niloticum*. He thought that the chief problem was whether *Trombidium niloticum* should refer to the larva or the adult. He was inclined to accept Trägårdh's statement : "I describe the larva as belonging to *Trombidium niloticum*" as indicating that Trägårdh considered the adult to be the form truly representing the species. He wrote, "If this is accepted then the name *Blankaartia bequaerti* (Fuller and Wharton), 1951 is available for the larva described under *Trombidium niloticum*, the type of the genus *Blankaartia*, whereas *Trombidium niloticum* Trägårdh, 1908 will be the type-species of *Tragardhula* Berlese, 1912."

14. Hemming's reply to Evans was long and detailed. He wrote : "There are two principal questions involved in this case namely (a) what is the correct interpretation of the nominal species *Trombidium niloticum* Trägårdh, 1905 and (b) in the light of the answer to question (a) above, what under the Rules is the type species, (i) of *Blankaartia* Oudemans, 1911, and (ii) of *Tragardhula* Berlese 1912. As soon as we have definite answers to the two questions set out above, but not till then, it will be possible to formulate for the consideration of the Commission the action needed to put the nomenclature of these genera and species on a firm and unassailable basis." Hemming took the view that in the case of a composite species like *T. niloticum* all the specimens are syntypes and the nominal species concerned is indeterminate until one of these syntypes is selected by a subsequent author to be the lectotype. If this had not been done already Hemming stated that it would have to be done in the application to be submitted to the Commission. It was clear, he continued, that Oudemans considered that the type species of *Blankaartia* was *Trombidium niloticum* Trägårdh as interpreted by the larva. Accordingly *Blankaartia* has as its type species a misidentified species. Under a decision taken by the Thirteenth International Congress of Zoology (1950 *Bull. zool. Nomencl.* 4 : 158-159) an author establishing a new genus is to be assumed to have correctly identified the species which he designates as the type species,

but where evidence is submitted to the Commission that this assumption would be incorrect, the Commission on being so asked, is bound to use its plenary powers to designate as the type species, the species intended by the original author. Applying this ruling to the case of *Blankaartia*, we find that under the Rules the type species of this genus is *Trombidium niloticum* Trägårdh (i.e. Trägårdh's adult form). But since this would run counter to Oudemans' original intention the Commission on being so asked would be bound to use its plenary powers to direct that *bequaerti* Fuller and Wharton (=Trägårdh's larval form) be accepted as the type species of this genus. As Berlese based his genus *Tragardhula* on the adult form of *Trombidium niloticum* then, assuming that the adult form has previously been selected as lectotype, the correct name for the adult form is *Tragardhula nilotica*. The action needed from the Commission would be, to use its plenary powers to give legal force to Oudemans' intention when he established the genus *Blankaartia* by designating Trägårdh's larval form to be type species of this genus; to place *Blankaartia* Oudemans 1911 with *Pseudoblankaartia bequaerti* Fuller and Wharton as type species and *Tragardhula* Berlese 1912 with *Trombidium niloticum* Trägårdh 1904 as type species, on the Official List of Generic Names in Zoology. At the same time it would be necessary to place the specific names *niloticum* Trägårdh 1904 and *bequaerti* Fuller and Wharton 1951 on the Official List of Specific Names in Zoology."

15. A copy of Hemming's letter to Evans was sent to Professor Wharton together with a covering letter recommending him to cooperate with Professor Fuller in making out a new application in which the selection of a lectotype of *Trombidium niloticum* would be an essential preliminary. A copy of this letter was also sent to Dr. Audy. In July 1956 Professor Wharton replied to Hemming's letter pointing out that in view of the wide circulation of Fuller and Wharton's "Manual of the Chiggers" (*Proc. Ent. Soc. Washington* No. 4, 1952) they wished to validate the decision adopted in that work and to conserve the name *Blankaartia* as applied to the adult mite which Trägårdh named as *Trombidium niloticum*. *Tragardhula* Berlese would thus sink as a synonym of *Blankaartia*, but Fuller and Wharton wanted the senior name *Blankaartia* suppressed by the Commission in favour of its junior synonym *Tragardhula* Berlese. In the meantime Brennan had written to the Commission enclosing a copy of his letter to Womersley of May 9th 1956. Hemming replied to Wharton and to Brennan in August 1956 stating that in view of the sharp difference of opinion among specialists on this matter he thought that the best thing to do was to place before the Commission simultaneously the two alternative proposals (Brennan's and Fuller and Wharton's).

16. The next letter to the Commission was from Dr. Audy (October 1956) who had received a copy of Wharton's July letter to the Commission. He was in the throes of publishing *Malaysian Parasites* XVI-XXXI and was anxious to maintain consistency in the names used. Audy considered that technically right or wrong, *Blankaartia* was the better name to use. He pointed out that Fuller and Wharton's paper in *Psyche*, 1951, had gone unchallenged for 6 years and that during that time *Blankaartia* had been used in (a) a first-class checklist, (b) a wide taxonomic revision and (c) a local revision.

During this interval *Tragardhula* had only been used twice. In other words Audy was in favour of using *Blankaartia* in place of *Tragardhula* for Trägårdh's adult and he made a plea for the rejection of *Tragardhula* in favour of *Blankaartia*.

17. In November 1956 the Commission received a long and detailed application from Dr. H. Womersley of the South Australian Museum, requesting the use of the plenary powers to validate the use of the binomen *Blankaartia nilotica* (Oudemans), 1911, for the larval component of the composite species *Trombidium niloticum* Trägårdh and also to validate the generic name *Tragardhula* Berlese, 1912, for the adult of *Trombidium niloticum* Trägårdh. Womersley made a point of the fact that of Trägårdh's original material only the adults would be syntypes whereas in the case of *Blankaartia* all syntypes would be larvae. He proposed that the larva described and figured by Oudemans in 1912 should be taken as the lectotype of *Blankaartia nilotica* Oudemans (non Trägårdh). He drew attention to a paper by Sig Thor and Willman 1947 (*Das Tierreich*, Lfg. 71b : 353) in which the authors used *Tragardhula nilotica* for the adults and (p. 499) *Blankaartia nilotica* for the larvae. Womersley proposed to select the single female of *Trombidium niloticum* upon which Berlese based his re-description and figures of *Tragardhula nilotica* Trägårdh as the lectotype of *Trombidium niloticum* Träg. [Presumably this female was part of the syntype material originally examined by Trägårdh and the lectotype would therefore be that of *Trombidium niloticum* Trägårdh although this is not clear from Womersley's statement]. Womersley refused to accept Fuller and Wharton's statement that *Blankaartia* could only refer to the adult of *T. niloticum* saying that it was both fallacious and illogical. He endeavoured to trace the deposition of Trägårdh's original material. There was no Oudemans material of *Blankaartia* in the Rijksmuseum van Natuurlijke Historie, Leiden. Dr. O. Lundblad was unable to find any adults in Trägårdh's Collection in the Naturhistoriska Riksmuseet in Stockholm. Even the larvae were in bad condition. He, Lundblad, said that Trägårdh did not label types. Amongst the slides sent to Womersley by Lundblad was only a single slide of *T. niloticum* comprising 3 larvae labelled in Trägårdh's writing "Trömbidium niloticum Träg. Larve. W. Nil. 20,3.01. Trägårdh," and at the other end of the slide labelled in Oudemans writing "*Blankaartia niloticum* Träg. Larva." There seemed, therefore, no doubt that this slide was the material studied by Oudemans, and that the three specimens were syntypes. In the absence of a holotype designation Womersley selected one of these three larvae as lectotype of *Trombidium niloticum* Oudemans 1911 non Trägårdh 1905 and indicated it by a ring of ink.

18. Womersley sent a copy of his application to a number of specialists including Professor Wharton and a copy of Wharton's reply to Womersley dated November 21, 1956, was sent to the Commission. Wharton, still concerned with the nomenclature used in his "Manual of the Chiggers," wrote : "In requesting that the International Commission use its plenary powers to validate the use of the names as you have used them in the past, you are requesting that the Commission validate your disregard of the rules of the International Commission so that your former invalid practice will be validated.

If the Commission grants this request they will be in a position of penalizing individuals who have followed the rules. This seems to me to be an unreasonable request of the Commission and I personally would lose my faith in the Commission if they were to grant your request." Professor Wharton stated that he and Professor Fuller were preparing another statement for submission to the Commission. This has not yet been received.

19. In October 1957 the Commission received a letter from Dr. R. V. Southcott of Hyde Park, South Australia. He wrote: "I have come to the conclusion that the larval element of Trägårdh's compound species should be called *Blankaartia bequaerti* (Fuller and Wharton, 1951) and that the adult element should be called *Tragardhula nilotica* (Trägårdh, 1905). In general I think Womersley's interpretation is correct, except for the specific name of the larval element. Apart from Berlese's (1912) incorrect use of *Blankaartia*, the names *Tragardhula* and *Blankaartia* were used each in a uniform sense until the action of Fuller and Wharton (1951). However, in founding *Blankaartia*, Oudemans (1911, amplified 1912) did not describe *nilotica* n. sp., but allotted the specific name *nilotica* to Trägårdh. In naming the larva *nilotica*, Trägårdh did so provisionally only, as he states: 'It is the writer's opinion therefore that in the name *Blankaartia nilotica* (Träg.) as proposed by Oudemans, the specific name was applied in error and is therefore invalid under Article 31. The writer is of the opinion that a solution as above will contribute most to the stability of the nomenclature'."

20. On the 26 September 1958, Hemming summed up the position as follows: "As will be seen, this file contains a considerable number of documents which will need to be published simultaneously. In view of the complexity of this case (and the different views held by different workers on particular aspects of it), I had intended to publish simultaneously with the above papers a Report by myself as Secretary in which I should have tried to summarise in an objective fashion both the views expressed in the other papers and the issues on which decisions by the Commission are needed. I felt that this was necessary because this case has so many facets and there was so much difference of opinion among the specialists concerned that there was, I thought (and still think) a serious danger that otherwise the case might get bogged down through the inability of the members of the Commission to appreciate the issue at stake."

Part 2. The Present Position

21. In writing up the present case it has been thought better to summarize the documents involved rather than to publish them in full. This has been done in the preceding survey. The differences of opinion among specialists which is such a feature of this case may best be set out in tabular form as follows:—

Trombidium niloticum Trägårdh, 1905

| Specialist | Adult (Species A) | Larva (Species B) |
|---|---|---|
| Trägårdh, 1905 Oudemans, 1911 | <i>Trombidium niloticum</i> | <i>Trombidium niloticum</i> <i>Blankaartia nilotica</i> (Trägårdh, 1905) (<i>T. niloticum</i> Tr. cited as type of genus) <i>Blankaartia nilotica</i> (Trägårdh) (full des- cription and figures) |
| Oudemans, 1912 | | |
| Berlese, 1912 | p. 4 <i>Tragardhula nilotica</i> (Träg.) (type cited as <i>T. niloticum</i> Träg.) p. 95. <i>Blankaartia nilotica</i> (Träg.) (type cited as <i>T.(B.) nilotica</i> Träg.) | |
| Fuller & Wharton, 1951 | <i>Trombicula (Blankaartia)</i> <i>niloticum</i> (Träg.) | <i>Pseudoblankaartia</i> <i>bequaerti</i> F. & W. |
| Fuller & Wharton, 1952 | <i>Blankaartia nilotica</i> (Träg.) | <i>Pseudoblankaartia</i> <i>bequaerti</i> F. & W. |
| Brennan (<i>in litt.</i>), 1956 | <i>Tragardhula</i> sp. inedit | <i>Blankaartia nilotica</i> (Träg.) |
| Evans, 1956 (<i>in litt.</i>) | <i>Tragardhula nilotica</i> (Träg.) | <i>Blankaartia bequaerti</i> (F. & W.) |
| Audy, 1956 (<i>in litt.</i>) | <i>Blankaartia nilotica</i> (Träg.) | <i>Pseudoblankaartia</i> <i>bequaerti</i> F. & W. |
| Womersley, 1956 (<i>in</i> <i>litt.</i>) | <i>Tragardhula nilotica</i> (Träg.) | <i>Blankaartia nilotica</i> Oudemans not Trägårdh |
| Southcott, 1957 (<i>in</i> <i>litt.</i>) | <i>Tragardhula nilotica</i> (Träg.) | <i>Blankaartia bequaerti</i> (F. & W.) |

From this table there appear to be only two clear-cut alternatives, since Brennan's proposal is based on an erroneous usage of the first-reviser principle which cannot be applied in this case, and Womersley's *Blankaartia nilotica* Oudemans (not Trägårdh) is the same as *Blankaartia bequaerti* (F. & W.). They are as follows :—

(a) The adult is *Blankaartia nilotica* (Trägårdh) while the larva is *Pseudoblankaartia bequaerti* Fuller and Wharton.

This alternative is supported by Fuller & Wharton and by Audy.

(b) The adult is *Tragardhula nilotica* Trägårdh while the larva is *Blankaartia bequaerti* (Fuller & Wharton).

This alternative is supported by Evans, Southcott and Womersley.

22. Let us now consider the problem purely in the light of the Rules. Since, according to Lundblad, Trägårdh did not label type-specimens, his nominal species *Trombidium niloticum* is only defined subjectively. A lectotype may, therefore, be selected from any of the included specimens (syntypes). In his application to the Commission Womersley proposes to select as lectotype of *Trombidium niloticum* Trägårdh the single adult female upon which Berlese based his redescription and figure of the species (*Redia* 8 : 96-98, 1912). Berlese wrote (translation) : "I have not seen the male and therefore am unable to associate it with the female of which I have a specimen sent to me by Trägårdh". Womersley also proposes to select as lectotype of *Trombidium niloticum* Oudemans, 1911 not Trägårdh, 1905 (i.e. *Blankaartia bequaerti* (F. & W.)), the larva described and figured by Oudemans in 1912 (*Zool. Jahrb.*, Supp. 14 : 118-122) and based on a slide from Trägårdh's collection borrowed by Oudemans and now preserved in the Naturhistoriska Riskmuseet, Stockholm. This slide bears three larvae labelled "*Trombidium niloticum* Träg. Larve" in Trägårdh's writing and "*Blankaartia niloticum* Träg. Larva" in Oudemans' writing. The Rules on the selection of lectotypes state quite definitely that "no specimen is to be treated as being a syntype which was referred to by the original author as a variant or as a variety or was only doubtfully referred to the species . . .". Now Trägårdh wrote (translation) : "On the majority of the mites [adults!] living as parasites was a *Trombidium* larva and since as previously stated, the water plants [on which these mites were found] were quite isolated, one is led to believe that they represent the larva of *T. niloticum*, although no actual proof can be found, since unhappily no nymphochrysalis was present. In the following I describe the larva as belonging to *Trombidium niloticum*". There is surely an expression of doubt here. On this point Oudemans (*Acaralog. Aanteekeningen* 46 Ent. Berecht. 3 : (70), 1913) wrote (translation) : "So there is not a single proof, not a single reason even to presume that the larva would belong to the adult (although the possibility remains open)". Owing to this element of doubt expressed by Trägårdh, a larval specimen could never, by the strict application of the rules, be regarded as a lectotype of *Trombidium niloticum* Trägårdh. This nominal species must, therefore, remain associated with the adult specimens described by Trägårdh, but according to Prof. O. Lundblad no adult specimen of this species can now be found in Trägårdh's collection. It has been shown by the specialists that when Oudemans based his new genus *Blankaartia* on the larval form of *Trombidium niloticum* Trägårdh, he was basing it on a species entirely different from *Trombidium niloticum* Trägårdh which was the nominal type-species of *Blankaartia*. This species, based on the larva, has since been named *bequaerti* by Fuller & Wharton.

23. This then is a clear-cut case of a genus (*Blankaartia*) based on a misidentified species. Since any lectotype of *Trombidium niloticum* Trägårdh must be an adult, a genus based on the larva must have for its type-species the species to which the larvae belong, namely, *Pseudoblankaartia bequaerti* F. & W. As previously stated (Hemming) "An author establishing a new genus is to be assumed to have correctly identified the species which he designates as the type-species, but where evidence is submitted to the Commission that this

assumption is incorrect, the Commission on being asked is bound to use its plenary powers to designate as the type-species, the species intended by the original author... We find that under the Rules the type-species of *Blankaartia* is *Trombidium niloticum* Trägårdh (adult), but since this would run counter to Oudemans' original intention the Commission, in view of the evidence submitted, is bound to use its plenary powers to direct that *bequaerti* Fuller & Wharton (= Trägårdh's larval form) be accepted as the type-species of this genus".

24. Alternative 21(a) above, adopted by Fuller and Wharton and Audy is apparently the correct one under a strict application of the Rules, but it is invalidated by the fact that it involves the selection, as a lectotype, of a specimen which was doubtfully included by Trägårdh in his original material of *Trombidium niloticum*. If this Alternative is accepted by the Commissioners then it would be necessary, in view of the present confusion, for the International Commission on Zoological Nomenclature to take the following actions:

- (1) to declare that the valid type-species of *Blankaartia* Oudemans, 1911 was in fact *Trombidium niloticum* Trägårdh (as designated by Oudemans) in spite of the fact that Oudemans based his genus on a larva which has been shown to represent quite another species;
- (2) to place the following generic names on the Official List of Generic Names in Zoology:
 - (a) *Blankaartia* Oudemans, 1911 (gender: feminine), type-species by monotypy, *Trombidium niloticum* Trägårdh, 1905;
 - (b) *Pseudoblankaartia* Fuller & Wharton, 1951 (gender: feminine), type-species by monotypy, *Pseudoblankaartia bequaerti* Wharton and Fuller, 1951;
- (3) to place the following specific names on the Official List of Specific Names in Zoology:
 - (a) *niloticum* Trägårdh, 1905, as published in the binomen *Trombidium niloticum* (type-species by monotypy of *Blankaartia* Oudemans, 1911);
 - (b) *bequaerti* Fuller & Wharton, 1951, as published in the binomen *Pseudoblankaartia bequaerti* (type-species of *Pseudoblankaartia* Fuller & Wharton, 1951);
- (4) to place the following generic name on the Official Index of Rejected and Invalid Generic Names in Zoology:

Tragardhula Berlese, 1912 (a junior objective synonym of *Blankaartia* Oudemans, 1911).

25. Alternative 21(b) above, adopted by Womersley, Evans and Southcott, if accepted by the Commissioners, would require the International Commission on Zoological Nomenclature to take the following actions:

- (1) use its plenary powers to set aside all designations of a type-species for the nominal genus *Blankaartia* Oudemans, 1911, made prior to the ruling now asked for and, having done so, to designate *Pseudoblankaartia bequaerti* Fuller & Wharton, 1951 as the type-species of that genus;

- (2) to place the following generic names on the Official List of Generic Names in Zoology :
- (a) *Blankaartia* Oudemans, 1911 (gender : feminine), type-species by designation under the plenary powers in (1)(a) above, *Pseudoblankaartia bequaerti* Fuller & Wharton, 1951 ;
 - (b) *Tragardhula* Berlese, 1912 (gender : feminine) type-species by monotypy *Trombidium niloticum* Trägårdh, 1905 ;
- (3) to place the following specific names on the Official List of Specific Names in Zoology :
- (a) *niloticum* Trägårdh, 1905, as published in the binomen *Trombidium niloticum* (type-species by monotypy of *Tragardhula* Berlese, 1904) ;
 - (b) *bequaerti* Fuller & Wharton, 1951, as published in the binomen *Pseudoblankaartia bequaerti* (type-species by designation under the plenary powers in (1)(a) above of *Blankaartia* Oudemans, 1911).
- (4) to place the following generic name on the Official Index of Rejected and Invalid Names in Zoology :
- Pseudoblankaartia* Fuller & Wharton, 1951, a junior objective synonym of *Blankaartia* Oudemans, 1911.

So far as is known there are no family group names based on the above genera.

COMMENT ON THE PROPOSED USE OF THE PLENARY POWERS TO STABILIZE THE GENERIC NAME *ORTHOCEROS* BRUGUIERE, 1789. Z.N.(S.) 44

(See this volume, pages 2-24)

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I think it extremely desirable to stabilise the name *Orthoceras*. It is quite impossible to compel geologists to write *Orthoceros*, *Orthocerotids*, or *Orthoceros-Limestone*. Some editors even correct *Orthoceros* into *Orthoceras*, taking it for a *lapsus calami*, and do not always notify the author about the change. The name *Orthoceras* has taken too deep root in the geological literature to be eradicated.